REMARKS

Applicants have studied the Office Action dated June 4, 2004. It is submitted that in view of the following remarks, the application is in condition for allowance. Claims 1-18 are pending. Claims 1, 5, 6, 10, 11, 15, have been amended. Reconsideration and further examination of the pending claims in view of the following remarks is respectfully requested. In the Office Action, the Examiner:

(2-3) Rejected claims 1, 3-4, 11, 13-14, 16, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Welles, II et al (U.S. Patent No. 6,532,495) in view of Ravi (U.S. Patent No. 6,292,834).

(4) Rejected claims 5, 10 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles (U.S. Patent No. 6,532,495).

(5) Rejected claims 6, 8-9, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles, II et al (U.S. Patent No. 6,532,495) in further view of Ravi (U.S. Patent No. 6,292,834).

(6) Rejected claims 2 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Welles, II et al (U.S. Patent No. 6,532,495) in view of Ravi (U.S. Patent No. 6,292,834) in further view of Birk et al. (U.S. Patent No. 6,502,139).

(7) Rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles, II et al (U.S. Patent No. 6,532,495) in further view of Birk et al. (U.S. Patent No. 6,502,139).

The Applicants respectfully submit that the Examiner's rejection under 35 U.S.C. § 103 (a) have been overcome based on the following remarks.

BC9-99-044   -8-   S/N 09/497,836

Telephone Interview

Applicants wish to thank Examiner Flynn for holding a telephone interview on September 14, 2004 in regards to the subject office action.   In that interview, representatives for the Applicants discussed the differences between the cited prior art and the claimed invention. In particular, differences between the cited prior art and aspects of the claimed invention in which an average rate of transmission of at least a portion of the specified data item is limited to be not greater than a speed that is specified by the requesting computer receiving the specified data item were discussed. In response to the Examiner's suggestion, Applicants are submitting these remarks.

In this telephone interview, the contrast of the claimed invention to the teachings of Ravi, where download speeds are controlled by selecting different streaming multimedia data objects based upon their transmission speed requirement, were discussed. Further discussed was the contrast of the claimed invention to teaching of Welles, where download speed is selected by selecting one of multiple download paths, where each of the multiple download paths has a different download speed capacity. The differences between these prior art references, and the presently claimed invention wherein download speed is controlled during the download process, were discussed in this telephone interview. The substance of this telephone interview are expanded upon in the following remarks.

An analogy between the claimed invention and the Welles reference may help to visualize this distinction. The Welles reference can be analogized to varying the speed of a trip by selecting which roadway to take to a destination, either a high speed super-highway or a slow speed city road. Under this analogy, the system of Welles always travels at the maximum possible speed for the selected roadway. Under this same analogy, the presently claimed invention can be thought of as taking the same roadway regardless of the desired speed, except that the speed actually traveled along that roadway is varied in response to a indicated speed. Applicants assert that this difference distinguishes the presently claimed invention from the cited prior art of record.

BC9-99-044   -9-   S/N 09/497,836

Overview of the Present Invention

The present invention is directed to a method and system for limiting the usage of data communications bandwidth when transferring a specified data item across a data link, wherein the specified data item is delivered in its entirety prior to being accessed. The present invention is not related to the delivery of "streaming" multimedia, but rather to the delivery of digital content in its entirety prior to its being accessed. In one aspect of the present invention, data is transmitted by receiving a request for a specified data item at a server and by receiving a speed indication signal at the server from the requesting computer. The speed indication signal comprises an indicated speed of transmission. The operation of the present invention then operates by limiting an average rate of transmission of at least a portion of the specified data item across a data link to the requesting computer to be not greater than the indicated speed, wherein the indicated speed is less than the data rate of the data link and the data rate capacity of the requesting computer.

Claim Amendments

Applicants have amended independent claims 1, 5, 6, 10, 11, and 15 to clarify that the indicated speed is, *inter alia*, less than the data rate capacity of the requesting (or client) computer. Support for this amendment is found in the specification at, for example, page 9, lines 7-10. Claim 11 was further amended to provide proper antecedent basis. No new matter was added by these amendments.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Welles in view of Ravi

As noted above, the Examiner rejected claims 1, 3-4, 11, 13-14, 16, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Welles, II et al (U. S. Patent No. 6,532,495) (hereinafter "Welles") in view of Ravi et al. (U.S. Patent No. 6,292,834) (hereinafter Ravi).[1] The Examiner recites 35 U.S.C. §103. The Applicants have submitted an affidavit under 37 CFR 1.131 herewith to overcome Welles. The effective filing date of February 3, 2000 for the subject patent application is not more than one year from the filing date of the above

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[1] Applicants make no statement whether such combination is even proper.

BC9-99-044   -10-   S/N 09/497,836

referenced patent. Accordingly, it is respectfully submitted that the rejection of claims 1, 3-4, 11, 13-14, 16, and 18 under 35 U.S.C. §103(a) should be withdrawn.

Although the Examiner indicates that Welles discloses the invention substantially as claimed, a determination of obviousness or non-obviousness, as expressly specified in the Statute cited by the Examiner, of the claimed subject matter requires giving full recognition to the claimed subject matter "as a whole."

To begin, the Welles disclosure is directed to a system for downloading a file over multiple data download paths that each have a different data rate capacity. The system of Welles varies download speed by selecting paths with different rate capacities. Welles, Abstract. There is no teaching in the Welles reference of "limiting an average rate of transmission ... to be not greater than the indicated speed, wherein the indicated speed is less than the data rate of the data link" as is recited for the independent claims of the present invention.

Applicants respectfully assert that the selection of a download path with a high or low data rate capacity is further not a teaching of "limiting an average rate of transmission ... to be not greater than the indicated speed" as is recited by the independent claims of the present invention. The teachings of Welles do not include a limiting step, only a selection step of selecting a download path with a high or low bandwidth, and then using that download path without any speed limitations.

The Ravi reference is directed to adjusting multimedia stream transmission rates so as to match the available capacity of either the communications link or the available processing power of the receiving node. The transmission rate is adjusted in response to "Decrease Bandwidth" (DEC_BW) message or a converse "Increase Bandwidth" message. The receiving node provides these Increase or decrease bandwidth messages as feedback from the receiving node to the transmitting node. These bandwidth messages are based upon excesses or deficiencies in the speed of either (i) processing or (ii) communications

BC9-99-044   -11-   S/N 09/497,836

as observed at the receiving node. Ravi, Abstract, FIG. 11. The "Increase Bandwidth" or "Decrease Bandwidth" messages are not taught to include an "indicated speed," but rather they convey only an "increase" or "decrease" instruction.

By way of analogy, a data transmission rate can be analogized to an audible volume control on a television. The "decrease bandwidth" and "increase bandwidth" messages of the Ravi disclosure are similar to "Volume Up" and "Volume Down" controls commonly found on a television. In contrast, the "indicated speed of transmission" as claimed by the present invention is analogous to specifying that the volume control is to be set to a value of 25% of total audio output.

.The only teaching in the Ravi reference for adjusting the transmission rate for a multimedia stream, which is the only data item taught to be transmitted in the Ravi reference, is to select video streams that present different "frames per second" (fps). Examples are given for "5 fps, 10 fps and 15 fps for bandwidths of 4 kbits/second (kbps), 14 kbsp, 18 kbps, and 44 kbps." Ravi, column 6, lines 44-47. This is consistent with streaming multimedia since the data must be delivered in "real time" in order to be continuously presented to the viewer. The "Background of the Invention" section of Ravi discusses this problem. Ravi, Col. 2, lines 20-34. The invention of Ravi solves this problem by selecting files with differing bandwidth requirements. Ravi, col. 6, lines 32-47.

As discussed in the above reference telephone interview on September 14, 2004, Applicants assert that selecting of one file from several that each have different bandwidth requirements, such as selection of streaming multimedia files that have different frame per second rates, is not a teaching of "limiting an average rate of transmission ... to be not greater than the indicated speed" as is recited for the independent claims of the present invention. Applicants respectfully assert that the Ravi reference is simply selecting data objects so as to match the available bandwidth.

BC9-99-044   -12-   S/N 09/497,836

Applicants further point out that independent claims 1, and 11 also specify that "the specified data item to be delivered in its entirety prior to being accessed[.]" Examples of this type of transfer are described in the specification as File Transfer Protocol (FTP) requests. See, Specification, page 4, lines 23-25. FTP file transfers, where the entire data object is transferred prior to being accessed by the receiving computer, are clearly distinguished from the "streaming multimedia data streams" taught by the Ravi reference. The Gupta reference, cited by the Examiner in rejections discussed below, teaches, "'streaming' is used to indicate that the data representing the various media types is provided ... on a realtime, as-needed bases, rather then being pre-delivered in its entirety before playback." Welles, Column 1, lines 30-34. Ravi is similarly restricted to streaming multi-media. Ravi, Column 3, lines 2-5.

Applicants further assert that neither the Welles reference or the Ravi reference, taken either alone or in combination, teach, suggest or make obvious the claimed invention, taken as a whole, which includes:

limiting an average rate of transmission of at least a portion of the specified data item across a data link to the requesting computer to be not greater than the indicated speed, wherein the indicated speed is less than the data rate of the data link and less than the data rate capacity of the requesting computer.

The Examiner correctly states that the Welles reference does not teach the above element. Applicants respectfully traverse the Examiner's assertion that application of the Ravi reference to the Welles reference would teach, suggest or make obvious the claimed invention "as a whole." Neither the Welles reference or the Ravi reference teach limiting an average rate of transmission of at least a portion of the specified data item ... to be not greater than an indicated speed wherein the indicated speed is less than the data rate of the data link and less than the data rate capacity of the receiving computer as is claimed for the present invention. As discussed above, Ravi teaches selection of one of a plurality data items, i.e., composite data streams, to vary "speed."

BC9-99-044   -13-   S/N 09/497,836

Applicants assert that the Ravi reference only teaches transmission of a message to "increase bandwidth" or "decrease bandwidth" messages from the client to the server. The present invention provides a large variety and hence greater granularity than the message to increase or decrease bandwidth. In further contrast to the Ravi reference, the present invention allows direct specification of the average transmission rate, by <u>receiving</u> <u>a speed indication signal at the server from the requesting computer, wherein the speed</u> <u>indication signal comprises an indicated speed of transmission of the specified data item</u>.

With regards to claims 16 and 18, Applicants further assert that these claims further distinguish over the cited references since these claims further specify that "the transmission rate is not related to a speed that is associated with the specified data item." This is in clear contrast to the teachings of Ravi, which selects a streaming multimedia data object with an associated speed, such as frames per second, to match the desired bandwidth.

For at least the reasons discussed above, Applicants respectfully assert that independent claims 1, and 11 distinguish over the Welles and Ravi references, taken either alone or in combination, and that the rejection of these claims under 35 U.S.C. §103(a) should be withdrawn. Applicants further assert that dependent claims 3, 4 and 16 and 13, 14 and 18 depend from claims 1 and 11, respectively, and further include all of the limitations of those claims. Therefore, Applicants respectfully submit that claims 3, 4, 13, 14, 16 and 18 similarly distinguish over Welles and Ravi for at least those reasons, and that the rejection of these dependent claims should also be withdrawn.

<u>Rejection under 35 U.S.C. §103(a) as being unpatentable over Gupta in view of Welles</u>
As noted above, the Examiner rejected claims 5, 10 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles (U.S. Patent No. 6,532,495). The Applicants have submitted an affidavit under 37 CFR 1.131 herewith to overcome Welles. The effective filing date of February 3, 2000 for the subject patent application is not more than one year from the filing date of

BC9-99-044   -14-   S/N 09/497,836

the above referenced patent. Accordingly, it is respectfully submitted that the rejection of claims 1, 3-4, 11, 13-14, 16, and 18 under 35 U.S.C. §103(a) should be withdrawn.

Further, the disclosure of Gupta is directed towards a <u>streaming</u> multimedia player that is able to change <u>video</u> or <u>audio</u> playback speeds by selecting <u>different</u> media streams <u>that are all previously stored</u> on a server. Gupta, Abstract, Column 6, lines 57-65. Gupta defines the term "streaming" at column 1, lines 30-34 as follows: (emphasis added)

> The term "streaming" is used to indicate that the data representing the various media types is provided over a network to a client computer on a <u>realtime, as-needed basis rather than being pre-delivered in its entirety before playback</u>.

The focus of the Gupta disclosure is on techniques for selecting a point within the <u>different media stream</u> that corresponds to the currently displayed point of a <u>currently viewed media stream</u>. Gupta, column 9, lines 5-17; column 10, lines 31-39. The user of the Gupta invention selects a time altered media stream, such as a multi-media segment that contains a fast forward version of a primary media stream. Gupta, column 8, lines 51-64.

Applicants further respectfully assert that the Gupta reference, which are concerned solely with the distribution of streaming multimedia, teach away from the delivery of a <u>specified data item to be delivered in its entirely prior to being accessed</u>, as is recited by amended independent claims 1, 6 and 11. Prior art that teaches away is a *per se* demonstration of lack of *prima facie* obviousness.[2]

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[2] See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

BC9-99-044   -15-   S/N 09/497,836

Moreover, the <u>Gupta</u> reference <u>is directed to the selection of different data items based upon the playback speed selected by a user</u>. <u>No determination</u>, processing associated with, <u>or direct limitation of transmission rates across the data link is mentioned in the Gupta reference</u>. The intent, purpose and function of the Gupta reference is the selection of data files or data items which contain streaming media that plays back at different speeds and the determination of the proper starting point within that file for a desired playback experience. The user of the Gupta system does not provide a "speed indication signal" that comprises "an indicated speed of transmission" and thereby explicitly "limits an average rate of transmission," as is set forth in the claims of the present invention. Applicants respectfully reassert from their earlier response that a modification of the Gupta reference to the purposes of the present invention destroys the intent, purpose and function of the Gupta invention. The Federal Circuit has consistently held that when a §103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such as proposed modification is not proper and the *prima facie* case of obviousness can not be properly made. See In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

With regards to claims 5, 10 and 15, Applicants respectfully assert that neither the Gupta reference or the Welles reference, taken either alone or in combination with each other, teach the claimed invention "as a whole," particularly the elements of:

> <u>generating a schedule</u> for <u>issuing pause transmission and resume transmission signals</u> <u>based on the user input speed setting</u>, wherein the schedule limits a transmission rate of transmission of at least a portion of the <u>specified</u> data item across a data link to the requesting computer to be not greater than the user input speed, wherein the input speed is less than the data rate of the data link and the data rate capacity of the requesting computer;

BC9-99-044   -16-   S/N 09/497,836

transmitting the user request for a <u>specified</u> data item to a server computer; and

<u>sending a sequence of pause transmission and resume transmission signals</u> from the client computer to a server computer according to the schedule.

With regards to the elements of claims 5, 10, and 15, Applicants are unable to identify in either the Gupta or Welles references any teaching of the following:

(A) "Generating <u>a schedule</u> for issuing <u>pause transmission</u> and <u>resume transmission signals</u>...."

A text search of both the Gupta and Welles references fails to find the word "schedule." The cited portions of Gupta discuss time compression and expansion for composite media streams. Gupta, column 6, lines 42-47. There is simply no teaching of "generating a schedule for issuing pause transmission and resume transmission signals..." as is claimed by dependent claims 5, 10 and 15.

Applicants respectfully assert that neither the Gupta or Welles references, taken alone or in combination with one another, teach, suggest or make obvious "generating a schedule" or issuing "pause transmission and resume transmission signals" as is specified by this element of claims 5, 10 and 15.

(B) "<u>sending a sequence</u> of <u>pause</u> transmission and <u>resume</u> transmission signals from the client computer to the server computer <u>according to the schedule</u>"

Applicants further respectfully assert that the "'pause removal' type of time compression" that was referred to in the passage cited by the Examiner, in Gupta in Column 7, lines 63 through Column 8, line 5, is not related to the "pause transmission"

BC9-99-044 -17- S/N 09/497,836

and the "resume transmission" as is claimed for the present invention. The Gupta reference teaches a type of "pause removal" whereby pauses within speech or other sounds are removed from the audio stream in order to reduce the amount of time a particular audio passage takes to play. Applicants assert that this is completely unrelated to transmitting pause and resume transmissions as is claimed for the present invention. Applicants further respectfully assert that cited references, especially the cited portions of the Gupta reference, do not even mention <u>sending a sequence of pause transmission and resume transmission signals from the client computer to the server computer according to the schedule</u>, as is claimed for an aspect of the present invention.

Therefore, Applicants respectfully assert that the Gupta and Welles references, taken either alone or in combination with each other, fail to teach, suggest or make obvious the claimed invention "as a whole," as is claimed by claims 5, 10 and 15. For at least the reasons discussed above, Applicants respectfully assert that claims 5, 10 and 15 distinguish over the Gupta and Welles references, taken either alone or in combination, and that the rejection of these claims under 35 U.S.C. §103(a) should be withdrawn.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Gupta in view of Welles in further view of Ravi

As noted above, the Examiner rejected claims 6, 8-9, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles, II et al (U.S. Patent No. 6,532,495) in further view of Ravi (U.S. Patent No. 6,292,834). The Applicants have submitted an affidavit under 37 CFR 1.131 herewith to overcome Welles. The effective filing date of February 3, 2000 for the subject patent application is not more than one year from the filing date of the above referenced patent. Accordingly, it is respectfully submitted that the rejection of claims 6, 8-9, and 17 under 35 U.S.C. §103(a) should be withdrawn.

BC9-99-044   -18-   S/N 09/497,836

As discussed above, Applicants assert that the Ravi reference does not teach "limiting an average rate of transmission..." as is claimed by independent claim 6. As further discussed above, Applicants assert that Gupta and Welles similarly do not teach this limitation and the combination of these references is improper and do not anticipate or render obvious the invention claimed by independent claim 6. Applicants further assert that these references do not teach the limitation of claim 17, which recites that "the transmission rate is not related to a speed that is associated with the specified data item."

Furthermore, Applicants note that claims 8-9 and 17 depend from independent claim 6 and include all of the limitations of that independent claim. As discussed above, claim 6 distinguishes over the cited prior art of record, and therefore claims 8-9 and 17 also distinguish over the prior art of record for at least those reasons.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Welles in further view of Ravi in further view of Birk

As noted above, the Examiner rejected claims 2 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Welles, II et al (U.S. Patent No. 6,532,495) in view of Ravi (U.S. Patent No. 6,292,834) in further view of Birk et al. (U.S. Patent No. 6,502,139). The Applicants have submitted an affidavit under 37 CFR 1.131 herewith to overcome Welles. The effective filing date of February 3, 2000 for the subject patent application is not more than one year from the filing date of the above referenced patent. Accordingly, it is respectfully submitted that the rejection of claims 2 and 12 under 35 U.S.C. §103(a) should be withdrawn.

Furthermore, Applicants note that claims 2 and 12 depend from claims 1 and 11, respectively, and include all of the limitations of those independent claims. As discussed above, claims 1 and 11 distinguish over the cited prior art of record, and therefore claims 2 and 12 also distinguish over the prior art of record for at least those reasons.

BC9-99-044   -19-   S/N 09/497,836

Rejection under 35 U.S.C. §103(a) as being unpatentable over Gupta in further view of Welles in further view of Birk

As noted above, the Examiner rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Gupta et al. (U. S. Patent No. 6,543,596) in view of Welles, II et al (U.S. Patent No. 6,532,495) in further view of Birk et al. (U.S. Patent No. 6,502,139). The Applicants have submitted an affidavit under 37 CFR 1.131 herewith to overcome Welles. The effective filing date of February 3, 2000 for the subject patent application is not more than one year from the filing date of the above referenced patent. Accordingly, it is respectfully submitted that the rejection of claim 7 under 35 U.S.C. §103(a) should be withdrawn.

As discussed above, independent claims 1, 5, 6, 10, 12 and 13 distinguish over the Gupta and Ravi references. Furthermore, dependent claims 2-4, 16; 7-9, 17 and 12-15, 18 depend from claims 1, 6 and 11, respectively, and contain all of the limitations of those claims. Therefore, dependent claims 2-4, 16; 7-9, 17 and 12-15, 18 distinguish over the Gupta and Ravi references for at least the same reasons, and therefore the rejection of these claims under 35 U.S.C. §103(a) should also be withdrawn.

BC9-99-044   -20-   S/N 09/497,836
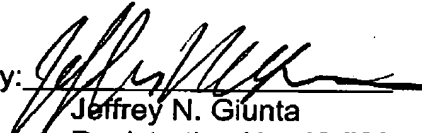
CONCLUSIONS

In view of the foregoing, it is respectfully submitted that the application and the claims are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

PLEASE, if for any reason the Examiner finds the application other than in condition for allowance, the Examiner is invited to call either of the undersigned attorneys at (561) 989-9811 should the Examiner believe a telephone interview would advance the prosecution of the application.
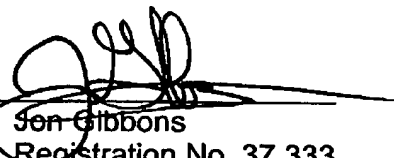
Respectfully submitted,

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BC9-99-044 -21- S/N 09/497,836